

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
4 August 2005 (04.08.2005)

PCT

(10) International Publication Number
WO 2005/071025 A1

(51) International Patent Classification⁷: **C09D 11/00**, C09B 67/00, 47/26

(74) Agents: MORPETH, Fraser, Forrest et al.; Avecia Inkjet Limited, Intellectual Property Group, PO Box 42, Hexagon Tower, Blackley, Manchester M9 8ZS (GB).

(21) International Application Number:

PCT/GB2004/004950

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(30) Priority Data:

0401540.0 23 January 2004 (23.01.2004) GB

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

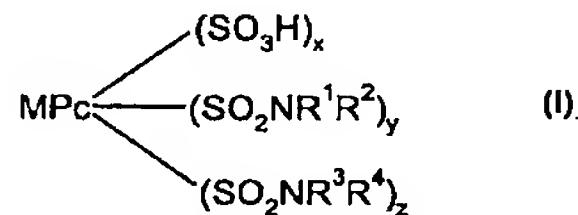
(71) Applicant (for all designated States except US): AVECIA INKJET LIMITED [GB/GB]; PO Box 42, Hexagon Tower, Blackley, Manchester M9 8ZS (GB).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PROCESS FOR THE FRACTIONATION OF MIXTURES OF PHTHALOCYANINE DYES



WO 2005/071025 A1

(57) Abstract: Process for forming an image on a substrate comprising applying an ink thereto by means of an ink-jet printer wherein the ink comprises a liquid medium and a phthalocyanine dye fraction obtainable, by the fractionation of a solution and/or suspension of a mixture of phthalocyanine dyes of Formula: (I), and salts thereof, by cross-flow filtration: Formula: (I) wherein: M is 2H, copper or nickel; Pc represents a phthalocyanine nucleus; R¹ and R³ independently are H or optionally substituted C₁₋₄alkyl; R² and R⁴ independently are H or optionally substituted hydrocarbyl; or R¹ and R², and, R³ and R⁴, independently, together with the nitrogen atom to which they are attached represent an optionally substituted aliphatic or aromatic ring system; x is 0 to 3.9; y is 0 to 3.9; z is 0.1 to 4; and the sum of (x+y+z) is 2.4 to 4.5.